UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,869	09/22/2003	Ayman Esam Nassar	985279.0119	1166

7590 05/04/2007	EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/667,869	NASSAR, AYMAN ESAM
	Examiner	Art Unit	
	Redentor M. Pasia	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-23* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-23* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *22 September 2003* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some * c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date *02/26/2004*.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1—12 D. 2.

Claims 1-2, 9-10, and 12 are rejected under 35 U.S.C. 112, second paragraph,

as being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

Claims 1-2, 9-10, and 12 recite the limitation "said logical communications node"

in line 5 of claim 1, lines 2-3 of claim 2, lines 2-3 of claim 9, line 4 of claim 10, lines 1-2

of claim 12. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless —
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 8, 11-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Schneider et al. (US 2006/0114889 A1; hereinafter Schneider).

As to claim 1, Schneider shows a packet services node within a telecommunications network (Figures 1-7, network connection 60; abstract); a logical master communications node associated with a service provider and capable of being dynamically configured in a customized manner by the service provider (Figure 5, edge router 42; Par. 0060-0061 with reference to Figure 5; shows the procedure where a service customer 10 requests connection and edge router receives an RSVP path message. The edge router 42 then validates the message and initiates a network connection to the other edge of the network connection capability. Also at Par. 0038, it shows that service customers 10 and 18 are not limited to individuals but also enterprise networks, ISPs, and peer networks.); and common resources, a portion of said common resources being dedicated to said logical communications node and capable of being configured by the service provider (Par. 0059; shows that network capability 60 may include an edge router 42 that accepts Resource Reservation Protocol (RSVP) signaling from the service customer 10.).

As to claim 2, Schneider shows that the portion of said common resources is capable of being dynamically and customarily reconfigured and allocated to said logical communications node (Par. 0059; shows that network capability 60 may include an edge router 42 that accepts Resource Reservation Protocol (RSVP) signaling from the service customer 10. Figure 5, edge router 42; Par. 0060-0061 with reference to Figure 5; shows the procedure where a service customer 10 requests connection and edge router receives an RSVP path message. The edge router 42 then validates the message and initiates a network connection to the other edge of the network connection capability. This service request connection configures the edge router to connect to the service provider.).

As to claim 8, Schneider shows an additional logical communications node associated with an additional service provider (Figure 5, Par. 0059; shows an edge router 46 that accepts RSVP signaling with service customer 18), said additional logical communications node being capable of being dynamically configured in a customized manner by the additional service provider; and an additional portion of said common resources dedicated to said additional logical communications node and capable of being configured by the additional service provider (Par. 0060-0062; shows how a connection is made between service customer 10 and 18. By requesting connection, steps 8-9 shows the RSVP path message used to realize the setup message to the service customer 18. The same reasoning is given as what was mentioned in claim 1 rejection.).

As to claim 11, Schneider shows that the network connection capability 60 can be realized by one or more IP routers (Par. 0059).

As to claim 12, Schneider shows that the logical communications node operates as a separate packet services node (Par. 0059, Figures 5-6; shows that the network connection capability 60 is realized by one or more IP routers which is shown as edge routers 42, 46.).

As to claim 13, Schneider shows a system for sharing and optimizing resources between service providers within a telecommunications network (figure 1 and Abstract), comprising: a first service provider capable of providing telecommunications services to end users (Par. 0023); and a unified and integrated switch within the telecommunications network and having a physical interface to said first service provider (Figure 5; shows network connection capability interfacing with Service customer 10 through edge router 42), said unified and integrated switch including a first logical communications node associated with said first service provider, said first logical communications node having a first portion of common resources dedicated thereto, the first portion of the common resources being configured by said first service provider (refer to claim 1 rejection).

As to claim 14, the same rejection is used as in claim 2.

As to claim 15, the same rejection is used as in claim 8.

As to claim 16, Schneider shows that the second logical communications node is a master communications node and said second service provider is an operator of said unified and integrated switch, said master communications node being configured to manage and allocate the common resources to the first logical communications node (Par. 0059; explains that Figure 5 utilizes session initiation protocol (SIP) for service signaling and resource reservation protocol (RSVP) for connection signaling. It further shows that service customer 18 (additional service provider) acts as the SIP user agent server and the network connection capability 60 is realized by one or more IP routers running RSVP. Par. 0060-0062, shows the connection configuration as mentioned in claim 1 rejection.).

As to claim 17, Schneider shows the master communications node is connected to additional master communications nodes on respective additional unified and integrated switches on the telecommunications network (figure 5; shows that edge router 46 is connected to the core router 44).

As to claim 18, Schneider shows a logical interface between the first logical

communications node and the second logical communications node (figure 5; edge

router 42 logically interfaces (through messages) to edge router 46 and vice versa by

passing through core router 44).

As to claim 19, Schneider shows a method for sharing and optimizing resources

of a packet services node within a telecommunications network between service

providers (Figure 5; network connection capability 60 connected to service customer 10

and 18. Par. 0059-0062, as mentioned in claims 1 and 8 shows the sharing and

optimizing of resources of the edge routers which are part of the network connection

capability.); receiving a service request from a service provider, said service request

including configuration information for a logical communications node associated with

the service provider within the packet services node (Par. 0060-0061, shows that the

RSVP path message is received by the edge router 42 within the network capability

connection 60. The RSVP is used to implement the connection setup request to

network capability connection 60. The RSVP path message contain the s_id and the

certificate as additional parameters.); allocating a portion of common resources within

the packet services node to the logical communications node; configuring the portion of

the common resources allocated to the logical communications node using the

configuration information (refer to claim 1 and 13 rejections); and providing a service to

the service provider using the logical communications node within the packet services

node (Figure 5; network connection capability 60 connected to service customer 10 and

18. Par. 0059-0062, as mentioned in claims 1 and 8 shows the sharing and optimizing

of resources of the edge routers which are part of the network connection capability.).

As to claims 20 and 21, Schneider shows a step of receiving a (new) service

request to establish the logical communications node associated with the service

provider within the packet services node (Par. 0060-0061; shows that a service request

is initially sent by service customer 10. The RSVP path message is received by the

edge router 42 within the network capability connection 60. The RSVP is used to

implement the connection setup request to network capability connection 60.).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al. (US 2006/0114889 A1; hereinafter Schneider) in view of Lau et al. (US 7,079,485 B1; hereinafter Lau).

As to claim 3, Schneider shows all of the elements except a switch fabric.

Lau shows at lines col. 3, 50-53, a distributed switch fabric. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Schneider by adding the distributed switch fabric of Lau in order to provide a way for ingress traffic coming in on a first telecommunications traffic line may easily egress to a different destination line (col. 3, lines 54-56).

As to claim 4, Schneider shows all of the elements except a line board.

Lau shows, at col. 14, lines 6-10, an electrical backplane 103a. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Schneider by adding the electrical backplane of Lau in order to properly assemble and properly mount the required components of the device.

As to claim 5, Schneider shows all of the elements except optical and electrical signal processing and handling components, optical and electrical signal processing and the handling component including at least one of such as transceivers optical splitters, optical/electrical converters, optical delays, electronic controllers, wavelength converters, and a high speed optical/electrical switching element.

Lau shows, at col. 9, lines 52-56, high-speed electrical or optical transceivers for
carrying serialized data and for converting between optical and electrical domain. Lau
also shows, at col. 4, lines 17-18, a set of switching chips. It would have been obvious
to one of ordinary skill in the art at the time of the invention to modify the apparatus of
Schneider by adding electrical/optical components of Lau in order to provide
serialization support services and providing conversion codes between more serialized
signal domain and less serialized domain (col. 3, liens 65-66 and col. 4, lines 8-11).

As to claim 6, Schneider shows all of the elements except traffic processor
boards.

Lau shows a traffic processor board (col. 8, lines 49-52; shows that ingressing
traffic maybe directed to one of the switch cards 74 and thereafter switched through the
switch card 74 for egress from another one of the line cards 72. Lau further shows, at
col. 16, lines 20-22, that ZINC and ZEST chips are provided on respective line and
switch cards that are also plugged into backplane 103a.). It would have been obvious
to one of ordinary skill in the art at the time of the invention to modify the apparatus of
Schneider by adding electrical/optical components of Lau in order to provide
serialization support services and providing conversion codes between more serialized
signal domain and less serialized domain (col. 3, liens 65-66 and col. 4, lines 8-11). It
would have been obvious to one of ordinary skill in the art at the time of the invention to
modify the apparatus of Schneider by adding the switch and line cards of Lau in order to

provide a way for ingress traffic coming in on a first telecommunications traffic line may

easily egress to a different destination line (col. 3, lines 54-56).

As to claim 10, Schneider in view of Lau shows said additional logical

communications node is a master communications node and the additional service

provider is an operator of the packet services node, the master communications node

being configured to manage and allocate said common resources to said logical

communications node (Par. 0059; explains that Figure 5 utilizes session initiation

protocol (SIP) for service signaling and resource reservation protocol (RSVP) for

connection signaling. It further shows that service customer 18 (additional service

provider) acts as the SIP user agent server and the network connection capability 60 is

realized by one or more IP routers running RSVP. Par. 0060-0062, shows the

connection configuration as mentioned in claim 1 rejection.).

Claims 7 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Schneider et al. (US 2006/0114889 A1; hereinafter Schneider) in view of Matthews et al

(US 2007/0083528 A1; hereinafter Matthews).

As to claim 7, Schneider does not show software resources.

Matthews shows that switch 12 is a 26-slot services processing switch that

marries scalable switching, routing and computing resources with an open software

architecture (Par. 0045). It would have been obvious to one of ordinary skill in the art at

the time of the invention to modify the apparatus of Schneider by adding the software

resources of Matthews in order to deliver computationally-intense IP services such as

VPNs with scalable high performance (Par. 0045).

As to claim 23, Schneider does not show a step of allocating and configuring are

performed dynamically.

Matthews shows an operating system, which dynamically distributes services to

switch 12 processors. It would have been obvious to one of ordinary skill in the art at

the time of the invention to modify the apparatus of Schneider by adding service

distribution of Matthews in order to segment and layer services for tens of thousands of

discrete subscribers (Par. 0046).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider

et al. (US 2006/0114889 A1; hereinafter Schneider) in view of Lau et al. (US 7,079,485

B1; hereinafter Lau) in further view of Matthews et al (US 2007/0083528 A1; hereinafter

Matthews).

As to claim 9, Schneider in view of Lau shows all of the elements except a

firewall providing private and secure separation between said logical communications

node and said additional logical communications node.

Matthews shows at Par. 0042, a firewall service model present in IP service

processing switch 12. Matthew further shows at Par. 0046, that service providers can

use switch 12's virtual routing capabilities, and its ability to turn IP services into discrete

and customized objects, to segment and layer services for the first time for tens of

thousands of discrete subscriber corporations. It would have been obvious to one of

ordinary skill in the art at the time of the invention to modify the apparatus of Schneider

in view of Lau by adding the firewall service model of Matthews in order to segment and

layer services for tens of thousands of discrete subscribers (Par. 0046).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Schneider et al. (US 2006/0114889 A1; hereinafter Schneider) in view of Lee at al. (US

6,728,77 B1; hereinafter Lee).

As to claim 22, Schneider does not show a step of allocating and configuring are

performed statically.

Lee shows, at col. 5, lines 32-42, that the resources required for the FEC can be

statically configured at the egress router, or may be obtain from other entities. It would

have been obvious to one of ordinary skill in the art at the time of the invention to modify

the apparatus of Schneider by adding the static configuration of resources of Lee in

order to allow resources to be allocated independent of the multicast path setup process

(col. 2, lines 61-62).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Johnson et al. (US 2003/0172170 A1), note abstract;

Terrell et al. (US 2003/0189936 A1), note abstract;

Schneider et al. (US 7,050,423 B2), note abtrract;

Carolan et al. (US 6,753,887 B2), note abstract.

RSVP Protocol Overview (http://www.isi.edu/rsvp/overview.html, Jan. 19, 1998 per WayBack Machine results.).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Redentor M. Pasia whose telephone number is 571-272-9745. The examiner can normally be reached on M-F 7:30am to 5:00pm EST, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H. To can be reached on (571)272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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